

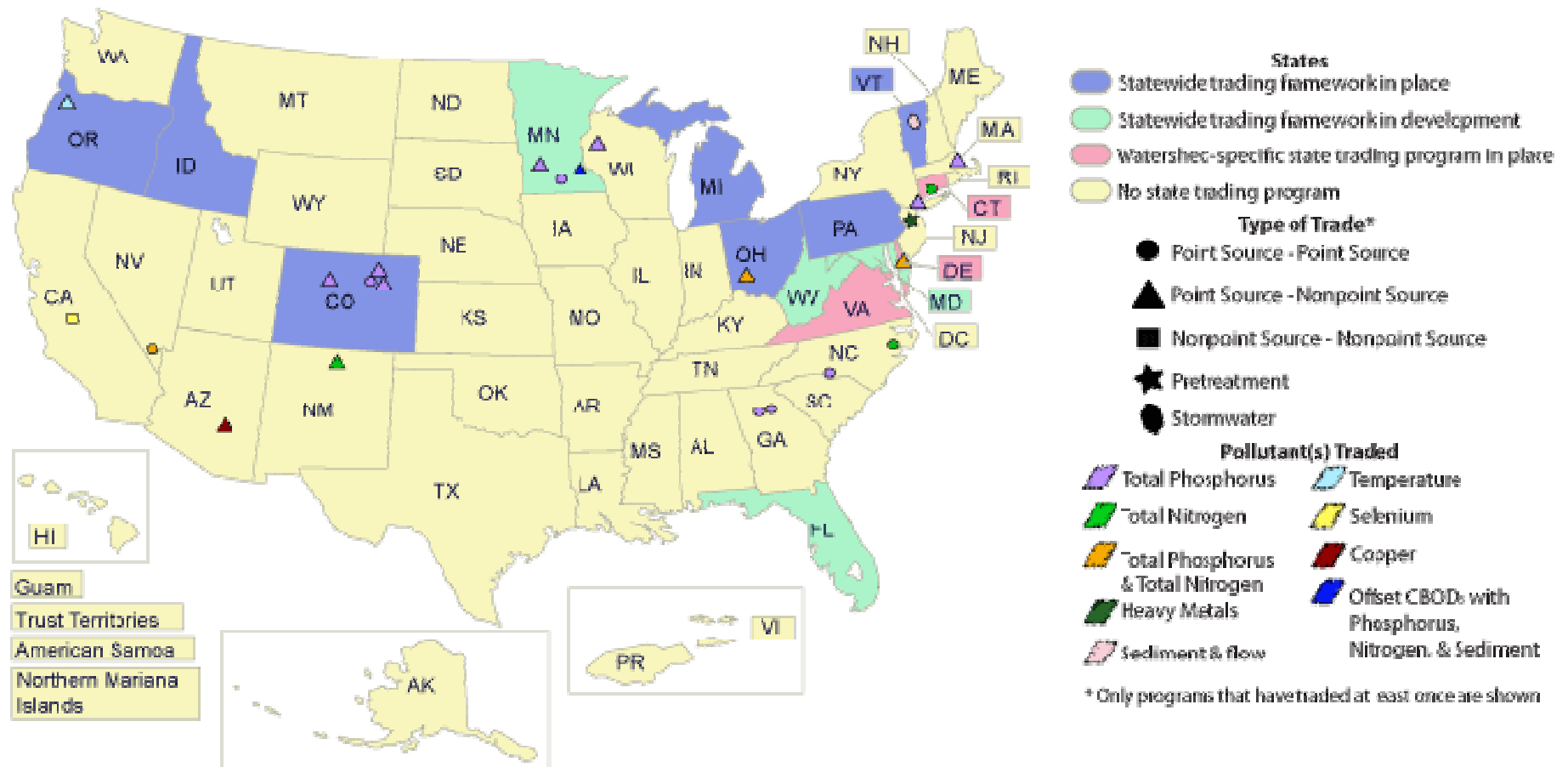
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# Water Quality Trading – Some Questions and Answers

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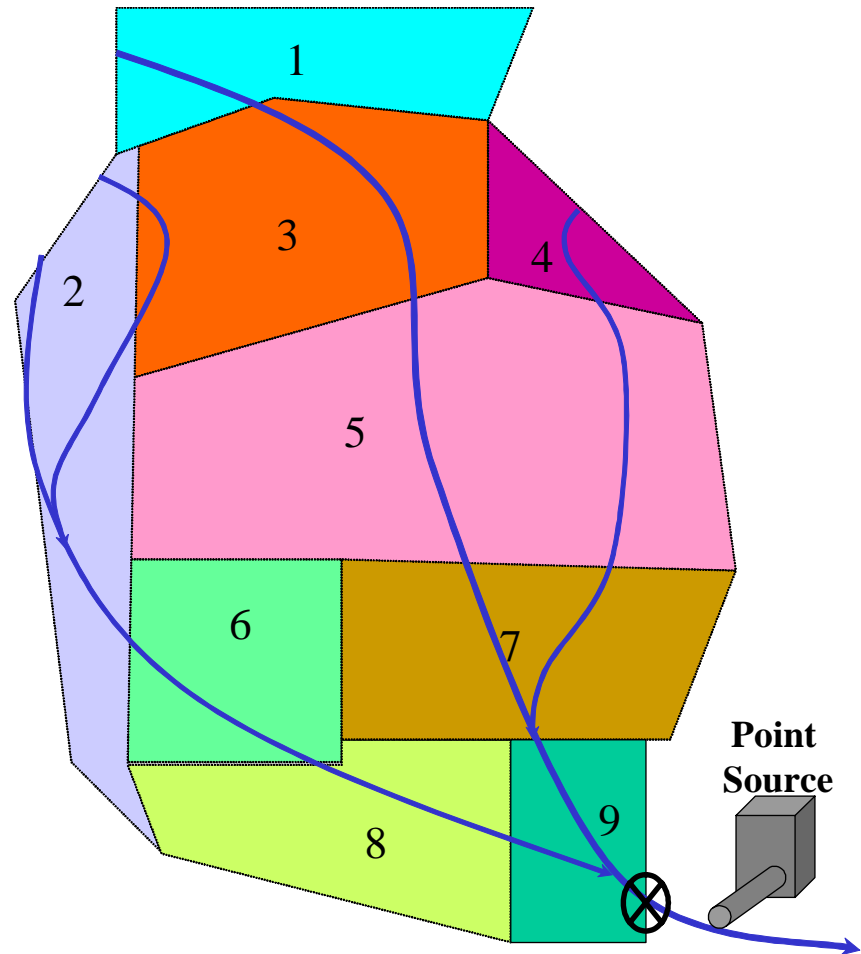
# What is the scale of water quality trading in the US?



<http://www.epa.gov/waterqualitytrading/tradingmap.html>

# What is Pollution Trading?

- System to re-allocate “**who**” does the polluting
- Need *regulations* for w.q. trading to occur.
- Can be
  - Point – Point
  - Point – Nonpoint
  - Nonpoint-Nonpoint?



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# Trading vs. Markets

- “Markets” when lots of buyers and sellers involved, information is widely available on what the commodity is, no one has market power, etc...
  - But... Trading can occur without the existence of full-fledged markets.
    - Can still obtain cost reductions
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# How are most trading systems set up?

- Most systems in place today are technology based trading systems with trading ratios.
  - Each system must have a demand and supply side.
  - Demand side
    - Point sources
    - Regulators create demand by allowing point sources to purchase “allowances” from nonpoint sources nearby.
    - Maybe the demand results from increased regulations.
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# How are most trading systems set up?

- Supply side

- Farmers, households, dept's of transportation, etc.
  - Allowances defined as 1 ton (or 1000 Kg) of N or P loading.
  - Technologies that may produce these reductions are specified.
    - 2500 linear feet of filter strips, 200 feet wide = 1 allowance, or 1 ton of N per year.
  - May incorporate trading ratios
    - To offset 1 ton of N from a point source, need 2 allowances from non point source (or 5000 linear feet).
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# WQ Trading/Market Pros & Cons

## ■ **Pros:**

- Reduce costs for ratepayers.
- Can reward “good” behavior.
- May produce other benefits (e.g., habitat).

## ■ **Cons:**

- May be difficult to get enough participants.
  - Participants must have cost differences.
  - Uncertainty about future costs.
  - Not all environmental problems fit...
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## Role for NRCS

- Potentially very large as programs expand across the country
  - Trading programs like the MCD Program in Ohio have relied heavily on SWCD's, which partner very closely with NRCS offices.
  - Most programs will be region-specific, and to some extent require “re-inventing” the wheel in each new location.
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# Role for NRCS

## ■ Design of standards

- ❑ Already something state and local offices routinely do.
  - ❑ All practices will need to have design specifications.
  - ❑ Always room for improvement and innovation.
  - ❑ Rates of technology change in agriculture are similar to other sectors, so there will always be a need to update standards.
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# Role for NRCS

- Implementation and Education

- Working with trading partners to scope out projects.
- Working with landowners to design practices for implementation.
- Educating landowners about options.
- Educating TSPs about options.

- Measuring, monitoring and enforcement

- NRCS may not be involved with enforcement, but may have an important role with measuring and monitoring.
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# Role for NRCS

## ■ Defining Costs

- ❑ Local cost sheets will be an important part of determining whether the trading is worth it.
- ❑ Will be important to keep these costs updated.

## ■ Research

- ❑ Measuring and setting standards for practices (e.g., the CEAP program)
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# Conclusion

- Trading is growing, and looks like it will continue growing.
  - NRCS already does quite a bit that is relevant for trading programs.
    - Success of trading will require successful engagement with NRCS.
  - This represents an opportunity for NRCS
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